FCC WARNING STATEMENT

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

FCC COMPLIANCE STATEMENT

This device complies with Part 15 of the FCC Rules. Operation of this device is subject to the following conditions: this device may not cause harmful interference and this device must accept any interference received, including interference that may cause undesired operation.

CANADIAN DOC STATEMENT

This digital apparatus does not exceed the Class B limits for radio noise for digital apparatus set out in the Radio Interference Regulations of the Canadian Department of Communications. Le présent appareil numérique n’émet pas de bruits radioélectriques dépassant les limites applicables aux appareils numériques de las classe B prescrites dans le Règlement sur le brouillage radioélectrique édicté par les ministère des Communications du Canada.

CE STANDARDS

Testing for compliance to CE requirements was performed by an independent laboratory. The unit under test was found compliant to B
LIMITED WARRANTY

ID TECH warrants to the original purchaser for a period of 12 months from the date of invoice that this product is in good working order and free from defects in material and workmanship under normal use and service. ID TECH's obligation under this warranty is limited to, at its option, replacing, repairing, or giving credit for any product which has, within the warranty period, been returned to the factory of origin, transportation charges and insurance prepaid, and which is, after examination, disclosed to ID TECH's satisfaction to be thus defective. The expense of removal and reinstallation of any item or items of equipment is not included in this warranty. No person, firm, or corporation is authorized to assume for ID TECH any other liabilities in connection with the sales of any product. In no event shall ID TECH be liable for any special, incidental or consequential damages to purchaser or any third party caused by any defective item of equipment, whether that defect is warranted against or not. Purchaser's sole and exclusive remedy for defective equipment, which does not conform to the requirements of sales, is to have such equipment replaced or repaired by ID TECH. For limited warranty service during the warranty period, please contact ID TECH to obtain a Return Material Authorization (RMA) number & instructions for returning the product.

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Section 1
INTRODUCTION

ID TECH VersaKey Compact Programmable Keyboard is a card-reader-enabled data-entry solution designed for POS and security applications. The VersaKey Compact is a full-function programmable keyboard with a space-saving 14” x 8” form factor, and an integrated MagStripe reader. It is available with Smart Card, touchpad or trackball options. Additionally, country-specific keyboard layouts in various languages are available.

The VersaKey Compact’s programmable keys are easily configured with ID TECH KeyUtility software, which is supplied with the product or can be downloaded from the ID TECH website. For multi-step procedures, macros can be programmed into the keyboard to simplify data-entry process. Each programmable key accepts up to 16 key codes. Once the key assignment is finalized, the code settings can be downloaded into the keyboard’s non-volatile memory.

The VersaKey magnetic card reader offers full data-editing capabilities. It is fully programmable using MagSwipe Configuration Utility available on the ID TECH website (http://www.idtechproducts.com). Data can be formatted with user defined preamble, postamble (a.k.a. prefix and suffix), and terminator characters to match with the format used in specific applications.

VersaKey Programmable Keyboard is available with USB- keyboard and USB-HID interfaces. VersaKey product with a USB-keyboard configuration always sends keyboard and MagStripe data in scan codes format so that the MagStripe data appears as if they were from a keyboard. For USB-HID device, VersaKey communicates MagStripe data in ASCII characters through the USB cable, allowing the VersaKey to serve separate keyboard and Magstripe reader functions via a single device. For additional information on USB-HID interface communication, please refer to 80074503-001 ID TECH VersaKey USB-HID interface reference manual.

Both the keyboard and the reader are industry proven solutions. Together, they deliver a space-saving, efficient and reliable POS solution. The keyboard provides more than 20,000,000 key operations; the reader has an operational life greater than 1,000,000 swipes. The VersaKey meets FCC Class B & CE regulatory requirements. ESD immunity is greater than 15KV with no damage to the circuits. VersaKey Keyboard is compatible with Windows 98, 2000, XP, & Vista operating systems.
Section 2
INSTALLATION AND OPERATION

To install the VersaKey, connect the keyboard to the PC/host device with the USB cable. When the VersaKey is powered up, it performs a self-test and initiation sequence with the computer. During the self-test, the MagStripe reader will beep. The keyboard power LED will illuminate to indicate power is applied.

Test the keyboard with normal use in a text editor like Word. The non-programmed keys are not pre-programmed with key codes and will not have output. Test the reader by swiping a magnetic-stripe card through the reader slot. The magnetic stripe must be facing toward the front of the keyboard. A beep will sound to indicate a good read on each magnetic track, as appropriate. If three tracks are available on the reader and all have been read successfully, the reader will beep three times. Readers with a non-keyboard type of communication interface must be tested using the PC MagStripe application software. But for readers with a keyboard (scan code) output, the card data is seen on the text editor just as it does when testing the keyboard.

The MagStripe data can be edited and formatted using ID TECH MagSwipe configuration utility. Configuration settings can also enable the reader to work with the host system communication port settings, data transmission intervals, or data rates for example.

To program the keys, the keyboard needs be connected to a PC that has the ID TECH KeyUtility software installed. Select the key from the key selection window and enter the key codes to be programmed either from the screen or on the physical keyboard. Each programmable key can be assigned with up to 16 key codes. The Test Key button provides a window to test the programmed keys once the change has been sent to the keyboard. The key code is programmed into the keyboard's non-volatile memory and can be saved to a file for use on other VersaKey Compact Programmable keyboards.

For detailed information on how to use the KeyUtility, please download the full user’s manual available on the ID Tech website.
Section 3
SPECIFICATION

VersaKey Keyboard

Mechanical
Keyswitch
  Total Travel  4.0 + 0.5 mm
  Operating Force  50 + 7g
Keyboard
  Color    Black
  Size     469.9 mm (L) x 203.9 mm (W) x 42.8 mm (H)
  Material  High Impact PS, Meets flammability spec. UL94HB
Cable Information
  Jacket Material  PVC jacket with Aluminum Shielding
  Length       1.5 M (5ft.) Overall
  PC Connector  USB
Drop          610 mm (24") Drop: 1 corner, 2-sidelines, 3-sides
Vibration     60 Hz/sec 3 mm amplitude X, Y and Z each axis at two hours
Operating Temperature  0°C to 40°C (32°F to 104°F)
Storage Temperature  -20°C to 40°C (-4°F to 104°F)

Electrical
Power Requirement  +5.0 VDC ±10%, 60ma Max
Industry Requirements  FCC class B and CE

Reliability
Operating Life  20,000,000 keystrokes
ESD Immunity     0KV to 8 kV min, without data loss.
                 8KV to 15 kV min, will function after reset
MTBF            More than 60,000 hours

MagStripe Reader

Number of tracks  Tracks 1 & 2 or Tracks 2 & 3 or Tracks 1, 2 & 3
Compatibility    ISO 7810 and 7811-1 through -6 cards.
Communications  Decoded data sent through Keyboard communications cable.
Output data formatting  Default or customized data output format; programmable through PC configuration utility. See Appendix for defaults
Operating Life  1,000,000 card swipes
Card speed range  3 to 60 IPS (Inches Per Second)
Audio beeper    Indicates error free card data reading or not
**Smart Card Reader (Optional)**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Smart card types</td>
<td>Microprocessor type, T=0 &amp; T=1</td>
</tr>
<tr>
<td>Compatibility</td>
<td>ISO 7816-1 thru 6 cards. EMVCo Compliant</td>
</tr>
<tr>
<td>Operating Life</td>
<td>1,000,000 card swipes</td>
</tr>
<tr>
<td>LED (green)</td>
<td>There is a card seated LED next to the smart card slot; the LED is on when the card is seated and powered.</td>
</tr>
</tbody>
</table>

**Touchpad (Optional)**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Tracking Speed</td>
<td>250 mm/s</td>
</tr>
<tr>
<td>Resolution</td>
<td>Dynamic resolution, 100-300 dpi</td>
</tr>
<tr>
<td>Operating Life</td>
<td>1,000,000 tapping/abrasion cycles</td>
</tr>
</tbody>
</table>

**Trackball (Optional)**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Max Tracking Speed</td>
<td>300 rpm</td>
</tr>
<tr>
<td>Resolution</td>
<td>800 +/- 30 counts per ball revolution</td>
</tr>
</tbody>
</table>
Section 4
TROUBLESHOOTING

Troubleshooting assistance for common VersaKey keyboard problems:

- **The data from the reader is not as expected.**
  The reader is shipped from the factory with the default settings already programmed. See Appendix B for the Default Settings. The default settings can be customer modified by using the MagSwipe Configuration Utility.

- **The reader does not output data.**
  The reader will beep when power is applied to the VersaKey. The reader will also beep for each track correctly read from a magnetic stripe. Use a known good credit card to test the reader operation. Insure that a text input application (such as Windows Notepad) is open and selected during the test.

- **The keyboard does not function with the computer.**
  If the power indicator LED is off, the keyboard may not be properly connected. Check the connections as well as the computer power. If the power LED is on but the keyboard is not functioning, the driver may not be loaded properly on the computer. Check the Device Manager in Hardware Properties of the computer. The driver is a standard windows driver for operating systems Windows 98SE and later.
Appendix A MagStripe Reader Default Settings

The Reader is shipped from the factory with the following magnetic stripe default settings.

Default Functional Settings

<table>
<thead>
<tr>
<th>Function</th>
<th>Default Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Terminal Type</td>
<td>PC/AT (Auto Selects)</td>
</tr>
<tr>
<td>Beep Volume</td>
<td>High</td>
</tr>
<tr>
<td>Character Delay</td>
<td>2 ms</td>
</tr>
<tr>
<td>Track Selection</td>
<td>Any Track</td>
</tr>
<tr>
<td>Data Output Format</td>
<td>ID TECH Format</td>
</tr>
<tr>
<td>Track Separator</td>
<td>See Section 7.3</td>
</tr>
<tr>
<td>MSR Reading</td>
<td>Enable</td>
</tr>
<tr>
<td>Decoding Method</td>
<td>Decoding in Both Directions</td>
</tr>
<tr>
<td>Terminator ID</td>
<td>ENTER (Keyboard)</td>
</tr>
</tbody>
</table>

Magnetic Stripe Data Output Format

Magnetic Track Basic Data Output Format

Track 1: \(<SS1><T_1 Data><ES><TS>\)

Track 2: \(<SS2><T_2 Data><ES><TS>\)

Track 3: \(<SS3><T_3 Data><ES><Terminator>\)

Where:

- SS1(start sentinel track 1) = %
- SS2(start sentinel track 2) = ;
- SS3(start sentinel track 3) = ; for ISO, % for AAMVA
- ES(end sentinel all tracks) = ?
- <TS> = <ENTER> key or CR
- Terminator = <ENTER> key or CR

Start or End Sentinel: Characters in encoding format which come before the first data character (start) and after the last data character (end), indicating the beginning and end, respectively, of data.

Track Separator: A designated character that separates data tracks.

Terminator: A designated character that comes at the end of the last track of data in order to separate card reads.

LRC: Check character, following end sentinel. (The reader will verify it when decoding, but this will not be sent as part of the data.)